

R.S. WEBB PUBLICATIONS

PEER-REVIEWED

- Webb, R.S., and Webb, T. III, 1988. Rates of sediment accumulation in small lakes and mires of eastern North America. *Quaternary Research* 30, 284-297.
- Thorson, R.M., and Webb, R.S. 1991. Postglacial history of a cedar swamp in southeastern Connecticut, *Journal of Paleolimnology* 6, 17-35
- Overpeck, J.T., Webb, R.S. and Webb, T. III. 1992. Mapping eastern North America vegetation change over the past 18,000 years: no-analogs and the future, *Geology* 20, 1071-1074.
- Webb, R.S., and Overpeck, J.T., 1993. Carbon reserves released? *Nature* 361, 497-498.
- Webb, R.S., Rosenzweig, C., and Levine, E., 1993. Specifying land surface characteristics in GCMs: soil profile dataset and derived water-holding capacities, *Global Biogeochemical Cycles* 7, 97-108.
- Webb, R.S., Anderson, K.H., and Webb, T. III., 1993. Pollen response surface estimates of late Quaternary changes in moisture balance of the northeastern United States, *Quaternary Research* 40, 213-227.
- Anderson, D.M., and Webb, R.S., 1994. Ice-age tropics revisited? *Nature* 367, 23-24.
- Webb, R.S., Rind, D.H., Lehman, S.J., Healy, R.J., and Sigman, D. 1997. Influence of ocean heat transports on climate of the Last Glacial Maximum. *Nature* 385, 695-699
- Bartlein, P.J., Anderson, K.A., Anderson, P.M., Edwards, M.E., Mock, C.J., Thompson, R.S., Webb, R.S., Webb T. III, and Whitlock, C., 1998. Paleoclimate Simulation for North America over the Past 21,000 Years: Features of the Simulated Climate and Comparisons with Paleoenvironmental Data. *Quaternary Science Reviews* 17, 549-586.
- Webb T. III, Anderson, K.A., Bartlein, P.J., Webb, R.S., 1998. Late Quaternary Climate Change in Eastern North America: a Comparison of Pollen-Derived Estimates with Climate Model Results. *Quaternary Science Reviews* 17, 587-606.
- Joussaume, S., Taylor, K. E., Braconnot, P., Mitchell, J. F. B., Kutzbach, J. E., Harrison, S.P., Prentice, I. C., Broccoli, A. J., Abe-Ouchi, A., Bartlein, P. J., Bonfils, C., Dong, B., Guiot, J., Herterich, K., Hewitt, C. D., Jolly, D., Kim, J. W., Kislov, A., Kitoh, A., Loutre, M. F., Masson, McAvaney, V., B. McFarlane, N., de Noblet, N., Peltier, W. R., Peterschmitt, J.Y., Pollard, D., Rind, D., Royer J. F., Schlesinger, M. E., Syktus, J., Thompson, S., Valdes, P., Vettoretti, G., Webb, R. S., Wyputta, U., 1999. Monsoon changes for 6000 years ago: Results of 18 simulations from the Paleoclimate Modeling Intercomparison Project (PMIP). *Geophysical Research Letters* 26, 859-862.
- Kerwin, M., Overpeck, J.T. Webb, R.S., DeVernal, A., Rind, D.H., and Healy, R.J., 1999. The role of oceanic forcing in mid-Holocene Northern Hemisphere Climatic Change. *Paleoceanography* 14, 200-210.
- Cole, J. E., Rind, D., Webb, R.S., Jouzel, J., and Healy, R.J., 1999. Global controls on interannual variability of precipitation $\delta^{18}\text{O}$: the relative roles of temperature, precipitation amount, and vapor source region. *Journal of Geophysical Research* 104, 14223-14235.
- Alley, R.B., Clark, P.U., Keigwin, L.D., and Webb, R.S., 1999. Making Sense of Millennial-Scale Climate Change, in "Mechanisms of Millennial-Scale Global Climate Change", eds. Peter U. Clark, Robert S. Webb, and Lloyd D. Keigwin, AGU Monograph 385-394.
- Jackson, S., Webb, R.S., Overpeck, J.T., Anderson, K.A. and Webb, T. III, Williams, J., Hansen, B.C.S., 2000. Vegetation and Environment in eastern North America During the Last Glacial Maximum *Quaternary Science Reviews* 19, 489-508.
- Overpeck, J.T. and Webb, R.S., 2000. Non-glacial Rapid Climate Events: Past and Future. *Proceedings of the National Academy of Sciences U.S.A.*, 97: 1335-1338.
- Newby, P.E., Killoran, P., Waldorf, M.R., Webb, R.S., Webb, T. III, 2000. 11,500 Years of Sediment, Vegetation and Water Level Changes at the Makepeace Cedar Swamp, Southeastern Massachusetts. *Quaternary Research* 53, 352-368.
- Bush, M.B., Stute, M., Ledru, M.P., Behling, H., Colinvaux, P.A., De Oliveira, P.E., Grimm, E.C., Hooghiemstra, Haberle, H., S., Leyden, B.W., Salgado-Labouriau, M.L., Webb, R., 2001. Paleotemperature Estimates of the Lowland Americas Between 30 Degrees South and 30 degrees North at the Last Glacial Maximum. In "Interhemispheric Climate Linkages", ed. V. Markgraf, Academic Press, 293-306.
- Charles, C.D., Rind, D., Healy, R., Webb, R, 2001. Tropical cooling and the isotopic composition of precipitation in general circulation model simulations of the ice age climate. *Climate Dynamics* 17(7), 489-502.
- Forman, S.L., Oglesby, R., and Webb, R.S., 2001. Temporal and spatial patterns of Holocene dune activity on the Great Plains of North America: megadroughts and climate links. *Global and Planetary Change*, 29, 1-29.
- Mathieu, R., Pollard, D., Cole, J., White, J.W.C., Webb, R.S., Thompson, S.L. (2002) Simulation of Stable Water Isotopes Variations by the Genesis GCM for Present-Day Conditions. *JGR*, Vol. 107, No. D4, 2:1-15.

R.S. WEBB PUBLICATIONS

- Markgraf, V. Webb, R.S., Anderson, K.H. and Anderson, L. (2002). Modern Pollen – Climate Calibration For Southern South America, *Palaeogeography, Palaeoclimatology, Palaeoecology* 181, 375-397.
- Mangan, J., Overpeck, J., Webb, R., Wessman, C., Goetz, A, (2004). Response of Nebraska Sand Hills Natural Vegetation to Drought, Fire, Grazing, and Plant Functional Type Shifts as Simulated by the Century Model. *Climatic Change* 63: 49–90.
- Kerwin, M.W., Overpeck, J.T., Webb, R.S., Anderson, K.H. Pollen-based summer temperature reconstructions for the eastern Canadian boreal forest, subarctic, and arctic. *Quaternary Science Reviews.*, 23, 1901-1924.
- Forman, S. L., L. Marin, J. Pierson, J. Gomez, G. H. Miller, and R. S. Webb, 2005: Aeolian sand depositional records from western Nebraska: Landscape response to droughts in the past 1500 years. *The Holocene*, 15, 973-981.
- Liu, Z. Y., S.-I. Shin, R. S. Webb, W. Lewis, and B. L. Otto-Bliesner 2005: Atmospheric CO₂ forcing on glacial thermohaline circulation and climate. *Geophys. Res. Lett.*, 32(2), L02706, 10.1029/2004GL021929.
- Schuck, E.C., W.M Frasier, R.S. Webb, L.J. Ellingson and R.J. Umberger. Adoption of More Technically Efficient Irrigation Systems as a Drought Response (2005). *International Journal of Water Resource Development*. 21, 4, 651-662.
- Shin S-I., P.D. Sardeshmukh, R.S. Webb, R.J. Oglesby, J.J. Barsugli (2006). Understanding the Mid-Holocene Climate. *Journal of Climate*, 19, 2801–2817.
- Kilbourne K.H., T.M. Quinn, T.P. Guilderson, R.S Webb, F.W. Taylor (2007). Decadal- to interannual-scale source water variations in the Caribbean Sea recorded by Puerto Rican coral radiocarbon. *Clim Dyn* DOI 10.1007/s00382-007-0224-2
- Kilbourne, K. H., T. M. Quinn, R. Webb, T. Guilderson, J. Nyberg, and A. Winter (2008), Paleoclimate proxy perspective on Caribbean climate since the year 1751: Evidence of cooler temperatures and multidecadal variability, *Paleoceanography*, 23, PA3220, doi:10.1029/2008PA001598
- Lowrey,J.L., Ray, A.J., Webb, R.S. (2009). Factors influencing the use of climate information by Colorado municipal water managers. *Climate Research*, 40, 103–119, doi: 10.3354/cr00827
- Shin, S.I., Sardeshmukh,P.D., and R.S. Webb (2010). Optimal Sea Surface Temperature forcing of North American Drought. *Journal of Climate*. DOI: 10.1175/2010JCLI3360.1
- Kilbourne, K. H., T. M. Quinn, R. Webb, T. Guilderson, J. Nyberg, and A. Winter (2010), Coral windows onto seasonal climate variability in the northern Caribbean since 1479, *Geochem. Geophys. Geosyst.*, 11, Q10006, doi:10.1029/2010GC003171.
- White, A., Colman, B., Carter, G., Ralph, F. M., Webb, R. S., Bandon, D. G., King, C. W., Neiman, P. J., Gottas, D. J., et. al, (2012). NOAA's rapid response to the Howard A. Hanson Dam flood risk management crisis. *Bull. Amer. Meteor. Soc.*, 93, 189–207. doi:10.1175/BAMS-D-11-00103.1
- McAfee, S. A., J. L. Russell, and R. S. Webb (2012). Influence of bias correction on simulated landcover changes, *Geophys. Res. Lett.*, 39, L16702, doi:10.1029/2012GL052808.
- Hoerling, M. P., Eischeid, J. K., Quan, X. W., Diaz, H. F., Webb, R. S., Dole, R. M., and Easterling, D. (2012). Is a Transition to Semi-Permanent Drought Conditions Imminent in the US Great Plains?. *Journal of Climate*. doi:10.1175/JCLI-D-12- 00449.1
- Vano, J.A. Udall, B., Cayan, D. R., Overpeck, J.T., Brekke, L.D., Das, T. Hartmann, H. C., Hidalgo, H.G., Hoerling, M., McCabe, G.J., Morino, K., Webb, R.S., Werner, K., and Lettenmaier, D.P. (2013) . Understanding Uncertainties in Future Colorado River Streamflow. *Bull. Amer. Meteor. Soc* (doi: <http://dx.doi.org/10.1175/BAMS-D-12-00228.1>)
- Dole, R., M. Hoerling, A. Kumar, J. Eischeid, J. Perlitz, X. W. Quan, G. Kiladis, R. Webb, D. Murray, M. Chen, K. Wolter and T. Zhang, 2013: The Making of An Extreme Event: Putting the Pieces Together, *Bull. Amer. Meteor. Soc* (doi: <http://dx.doi.org/10.1175/BAMS-D-12-00069.1>)
- Webb R.S., J. Jasperse, P. Rutten and F.M. Ralph (2014). Environmental Intelligence to support decision-making in California's Russian River Basin: A case study for wine, fish, water management, and the prediction of hydrologic events. *US CLIVAR Variations*, 12 (4), 8-12.
- Ray, A.J., and R.S. Webb (2016). Understanding the user context: decision calendars as frameworks for linking climate to policy, planning and decision-making. Pp 27-50 in: *Climate in Context: Lessons learned from the RISA Program*, Parris, A, et al, eds. Wiley & Sons.

OTHER

- Prentice, I.C., Webb, R.S., et al., 1989. Developing a global vegetation dynamics model: results of an IIASA summer workshop. *IIASA Publication RR-89-7*, Laxenburg, Austria.
- Webb, R.S., Rosenzweig, C.E., and Levine, E. 1991. A global data set of soil particle size information. *NASA Technical Memorandum 4286*.

R.S. WEBB PUBLICATIONS

- Anderson, D. M., Webb, R.S., Overpeck, J.T., and Bauer, B., 1993. The NOAA Paleoclimatology Program: Using evidence from the past as a key to understanding and predicting future climate change. *Earth System Monitor* 3: 6-8.
- Webb, R.S., Overpeck J.T., D.M. Anderson, and others. 1993. World Data Center-A for Paleoclimatology at the NOAA Paleoclimatology Program. *Journal of Paleolimnology* 9: 69-75.
- Joussaume, Webb, R.S., and Taylor, K., 1995. The Paleoclimate Modeling Intercomparison Project (PMIP). In "Global Paleoenvironmental Data: A report from the workshop sponsored by Past Global Changes (PAGES) August, 1993", Organized by J.T. Overpeck and J. Pilcher, edited by D.M. Anderson. PAGES Workshop Report Series 95-2
- Newby, P.E., Webb, R.S., Webb, T. III, 1995. Pollen and Sediment Records from Walter's Puddle in Central Delaware. Delaware Department of Transportation/U.S. Department of Transportation report, Archaeology Series No. 114, "Paleoenvironmental Studies of the State Route 1 Corridor: Contexts for Prehistoric Settlement, New Castle and Kent Counties, Delaware".
- Newby, P.E., Webb, R.S., Webb, T. III, 1995. Palynology and Paleohydrology of Central Delaware. Delaware Department of Transportation/U.S. Department of Transportation report, Archaeology Series No. 114, "Paleoenvironmental Studies of the State Route 1 Corridor: Contexts for Prehistoric Settlement, New Castle and Kent Counties, Delaware".
- Webb, R.S., Anderson, D.M., and J.T. Overpeck. 1994. Editorial: Archiving data at the World Data Center-A for Paleoclimatology. *Paleoceanography* 9: 391-393.
- Overpeck, J., Webb, R. and Anderson, D. 1996. Teaming up to meet IGBP Paleoenvironmental data needs. IGBP Global Changes Newsletter 27: 28-29.
- Overpeck, J., Webb, R. 1999. Abrupt Climate Change Research. *Quaternary Times*, AMQUA June Newsletter.
- Vorosmarty, C.J, abd the NSF-ARCSS Hydrology Workshop Steering Committee 2001. The Hydrologic Cycle and its Role in Arctic and Global Environmental Change: a Rationale and Strategy for Synthesis Study: Fairbanks Alaska: Arctic Research Consortium of the US, 84 pp.
- Vörösmarty, C., L. Hinzman, B. Peterson, D. Bromwich, L. Hamilton, J. Morison, V. Romanovsky, M. Sturm, and R. Webb (2002), Arctic-CHAMP: A program to study arctic hydrology and its role in global change, *Eos Trans. AGU*, 83(22), 241, doi:10.1029/2002EO000167.
- Ojima, D.S., Lackett, J.M., and the Central Great Plains Steering Committee and Assessment Team, 2004. Preparing for a Changing Climate: The potential consequence of climate variability and change – Central Great Plains. Report for the US Global Change Research Program. Colorado State University. 103 pp.
- Schuck, E. C., W.M. Frasier, and R. Webb. 2003 "Preliminary Summary of the 2002 Colorado Drought Survey", *Colorado Water*, Volume 20, No. 3: 8-11.
- National Integrated Drought Information System Core Team 2004. Creating a Drought Early Warning System for the 21st Century. Western Governors' Association, pp 13.
- Cook, E.R., P.J. Bartlein, N. Diffenbaugh, R. Seager, B.N. Shuman, R.S. Webb, J.W. Williams, and C. Woodhouse, 2008: Hydrological variability and change. In: *Abrupt Climate Change*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. U.S. Geological Survey, Reston, VA, pp. 67-115.
- Feldman, D.L., K.L. Jacobs, G. Garfin, A. Georgakakos, B. Morehouse, P. Restrepo, R. Webb, B. Yarnal, D. Basketfield, H.C. Hartmann, J. Kochendorfer, C. Rosenzweig, M. Sale, B. Udall, and C. Woodhouse, 2008: Making Decision-Support Information Useful, Useable, and Responsive to Decision-Maker Needs. In: *Decision-Support Experiments and Evaluations using Seasonal-to-Interannual Forecasts and Observational Data: A Focus on Water Resources*. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. NOAA's National Climatic Data Center, Asheville, NC, pp. 101-140.
- Ray, AJ; Barsugli, JJ; Averyt, KB; Wolter, K.; Hoerling, M.; Doesken, N.; Udall, B.; Webb, R.S. 2008. Climate change in Colorado: a synthesis to support water resources management and adaptation. Report for the Colorado Water Conservation Board. University of Colorado, Boulder
- Brekke, L.D., J.E. Kiang, J.R. Olsen, R.S. Pulwarty, D.A. Raff, D.P. Turnipseed, R.S. Webb, and K.D. White. 2009a. Climate change and water resources management—A Federal perspective. U.S. Geological Survey Circular 1331. Reston, VA: U.S. Geological Survey. <http://pubs.usgs.gov/circ/1331/Circ1331.pdf>
- NOAA Climate Service Vision and Strategic Framework Document (v9.0 - 12/20/2010)
- Central Valley Flood Protection Plan—Climate-Change Scope Definition Work Group Summary Report: California Department of Water Resources Flood Safe Report (2012)
- Hoerling, M., Eischeid, J., R.S. Webb (2013) Understanding and Explaining Climate Extremes in the Missouri River Basin Associated with the 2011 Flooding <http://www.esrl.noaa.gov/psd/csi/factsheets/pdf/noaa-mrb-climate-assessment-report.pdf>

R.S. WEBB PUBLICATIONS

Pegion, K., and R.S. Webb (2014) Seasonal Precipitation Forecasts Over the Missouri River Basin - An assessment of operational and experimental forecast system skill and reliability.
<http://www.esrl.noaa.gov/psd/csi/factsheets/pdf/noaa-mrb-fcst-skill-assessment-report.pdf>

WWW PUBLICATIONS

Overpeck, J.T., Woodhouse, C., Webb, R.S., and Anderson, D.M. (1999). A Paleo Perspective on Global Warming.

Woodhouse, C., Webb, R.S., Overpeck, J.T., Lixey, L., Keltner, J., Heuer, C.L., Gross, W.S., Gille, E.P., Eakin, C.M., Bauer, B.A. and Anderson, D.M. (2000). North American Drought: A Paleo Perspective.

Webb, R.S., J.K. Eischeid, H.F. Diaz, K.E. Wolter, C.A. Smith, and R.M. Dole (2002). Global Patterns of the Risk of Seasonal Extremes Related to ENSO. <http://www.esrl.noaa.gov/psd/spotlight/2002/enso-risk.html>

BOOKS EDITED

Clark, P.U., and Webb, R.S., Keigwin, L.D. (eds) "Mechanisms of Millennial-Scale Global Climate Change". AGU Geophysical Monograph 112, 1999.

INVITED BOOK REVIEWS

Webb, R.S., 1995. Review of "Global Climates Since the Last Glacial Maximum" edited by H.E. Wright, J.E. Kutzbach, T. Webb III, W.F. Ruddiman, F.A. Street-Perrott, and P.J. Bartlein. *Journal of Paleolimnology* 14, 228-230.